

Title (en)
COMPOSITE COMPONENTS

Title (de)
VERBUNDKOMPONENTEN

Title (fr)
COMPOSANTS COMPOSITES

Publication
EP 3575071 A1 20191204 (EN)

Application
EP 18275073 A 20180530

Priority
EP 18275073 A 20180530

Abstract (en)
A fibre-reinforced polymer component 202 is provided which comprises a main portion 204 comprising fibre-reinforced polymer and at least one surface and at least one raised feature 206 extending from said surface. The at least one raised feature 206 consists of non-reinforced polymer and is shaped to incur visually perceptible damage when the component 202 is subject to an impact with an energy above a predetermined impact energy threshold and to resist an impact with an energy below the predetermined impact energy threshold. The at least one raised 206 feature thus provides a clear visual aid as to when a component 202 has experienced an impact with an energy above the impact energy threshold. Because the raised feature 206 consists of polymer without fibre reinforcement, it is more fragile than the fibre-reinforced polymer main portion 204 and thus reduces the energy at which impacts may be detected.

IPC 8 full level
B29C 70/48 (2006.01); **B29C 45/14** (2006.01); **B29C 70/02** (2006.01); **B29C 70/88** (2006.01); **B29L 23/00** (2006.01)

CPC (source: BR EP US)
B23B 27/02 (2013.01 - US); **B29B 11/06** (2013.01 - BR); **B29B 11/14** (2013.01 - BR); **B29C 45/14** (2013.01 - US); **B29C 49/071** (2022.05 - EP); **B29C 70/02** (2013.01 - US); **B29C 70/025** (2013.01 - EP); **B29C 70/48** (2013.01 - EP US); **B29C 70/887** (2013.01 - EP); **B32B 27/02** (2013.01 - US); **F16L 55/00** (2013.01 - US); **F16L 55/02** (2013.01 - US); **B29C 70/48** (2013.01 - BR); **B29C 70/546** (2013.01 - BR); **B29C 2949/0715** (2022.05 - EP); **B29L 2023/003** (2013.01 - EP); **B29L 2023/22** (2013.01 - US); **F28F 1/06** (2013.01 - BR)

Citation (search report)
• [X] DE 19850462 A1 20000504 - FRITZMEIER COMPOSITE GMBH & CO [DE]
• [X] EP 2335908 A1 20110622 - SIEMENS AG [DE]
• [X] US 3428507 A 19690218 - BALL ERIC
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EP3800036A1; US11193619B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3575071 A1 20191204; BR 102019010826 A2 20191203; BR 102019010826 B1 20231031; CA 3043190 A1 20191130; US 11193619 B2 20211207; US 2019368645 A1 20191205

DOCDB simple family (application)
EP 18275073 A 20180530; BR 102019010826 A 20190527; CA 3043190 A 20190513; US 201916424555 A 20190529